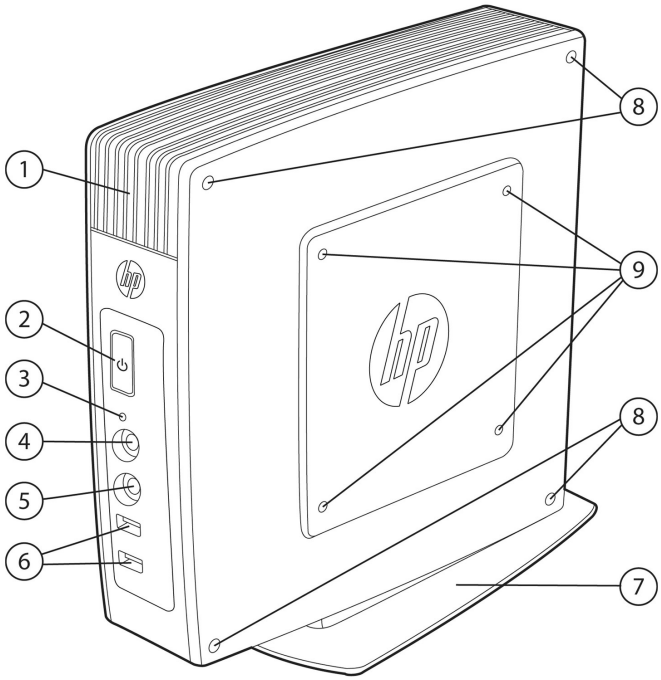
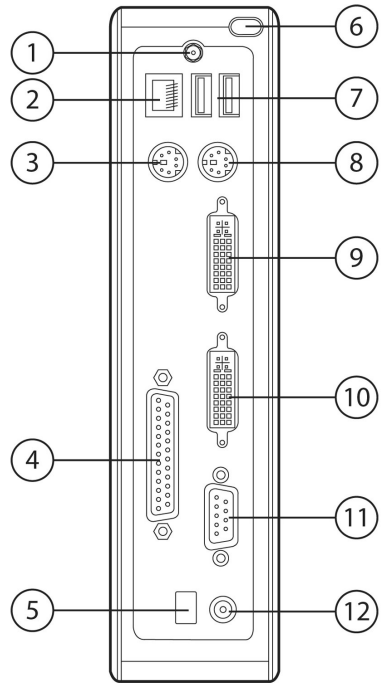
Introduction

The HP t5570 Thin Client delivers a great desktop experience with added features to make deployment and use simple and efficient. Windows® Embedded Standard 2009 combined with a full-featured browser, the latest protocol support, write filter, firewall protection, and terminal emulation make the HP t5570 the ideal choice for client virtualization environments.



Front

1. Secure USB compartment (2 USB connectors)
2. Power button with LED
3. Flash storage activity indicator
4. Audio connector (mic in)
5. Audio connector (headphone out)
6. USB connectors (2)
7. Vertical stand (removable)
8. Insertion points for self-adhesive, horizontal positioning feet
9. VESA mounting points (4)



Back

1. Integrated wireless Ethernet antenna connector (available on some models
2. 10/100/1000 Ethernet RJ-45 connector
3. PS/2 mouse connector
4. Parallel port
5. Power cord retention slot
6. Cable routing from secure USB compartment
7. USB connectors (2)
8. PS/2 keyboard connector
9. DVI-D connector
10. DVI-I connector
11. Serial Port
12. +19V DC power input

Overview

At A Glance

Hardware features:

- VIA Nano u3500 1 GHz processor for great performance
- VIA VX900 chipset
- 1 GB 800 MHz DDR3 RAM (64 MB reserved for video)
- 2 GB Flash memory provides ample storage for applications and drivers
- 6 USB 2.0 ports
- Secure USB compartment is ideal for protecting USB wireless and USB Flash devices or for securing USB keyboard and mouse)
- Legacy support includes parallel, serial, and PS/2 connections
- Built in dual monitor support (DVI-I and DVI-D native, with DVI-I-to-VGA adapter included in carton)
- ENERGY STAR® qualified and EPEAT® registered
- BFR/PVC free[1]
- Contains over 10% post-consumer recycled plastics (by weight)

Software features:

- Highly extensible Windows Embedded Standard 2009 OS with support for local applications
- Excellent rich multimedia experience and enhanced USB device support in blade PC and VDI environments
- Enhanced Write Filter and File-Based Write Filter provide complete flexibility to protect the entire Flash disk, or configure areas of the disk for persistent access by local applications
- HP Symantec Endpoint Protection for enhanced data security
- HP TeemTalk Terminal Emulator enables connection and communication with applications on mainframes and midrange systems
- HP Easy Tools:
  - The HP Easy Update utility that makes it quick and easy to identify and choose the latest image and add-on settings helping get up, running and productive faster than ever before.
  - And more features coming soon (Use HP Easy Update to download an updated and enhanced version of HP Easy Tools starting late February 2011)
- Enterprise class HP Device Manager, lets you remotely manage devices from a central location
- Support for HP Client Automation for quick and easy deployment of images and thin client management.
- HP Universal Print Driver (available as add-on) supports a variety of printers

Warranty:

- HP Total Care Warranty and Services: limited three-year hardware warranty in most regions. HP Care Pack Services extend service contracts beyond your standard warranties. For more details visit: http://www.hp.com/go/lookuptool.

[1]HP t5570 thin clients are brominated flame retardant and polyvinyl chloride free (BFR/PVC-free); meeting the evolving definition of "BFR/PVC-free" as set forth in the "iNEMI Position Statement on the 'Definition of Low-Halogen Electronics (BFR/CFR/PVC-Free).'" Plastic parts contain <1,000 ppm (0.1 percent) of bromine (if the Br source is from BFRs) and <1,000 ppm (0.1 percent) of chlorine (if the Cl source is from CFRs or PVC or PVC copolymers). All printed circuit board (PCB) and substrate laminates contain bromine/chlorine total <1,500 ppm (0.15 percent) with a maximum chlorine of 900 ppm (0.09 percent) and maximum bromine being 900 ppm (0.09 percent). Service parts after purchase may not be BFR/PVC-free. External power supply, power cords, keyboard, mouse, and DVI-to-VGA adapter are not BFR/PVC free

Models

XR242AA#XXX XR242AT#XXX (SmartBuy or Promo) XR244AA#ABA (TAA compliant)[2]	Model Name	HP t5570 Thin Client
	Processor	VIA Nano superscalar u3500 1 GHz
	Flash	2 GB
	System Memory	1 GB (128 MB reserved for video)
	Graphics	VIA ChromotionHD 2.0 Integrated Graphics Processor (in VIA VX900 chipset)
	Operating System	Microsoft Windows Embedded Standard 2009
	Keyboard	Keyboard (USB or PS/2) varies by region
	Mouse	Mouse (USB or PS/2) varies by region
	Side Panels	Standard 100 mm VESA mounting holes

XR243AA#XXX XR243AT#ABA (SmartBuy or Promo) XR245AA#ABA (TAA compliant)	Model Name	HP t5570 Thin Client with Integrated Wi-Fi
	Processor	VIA Nano superscalar u3500 1 GHz
	Flash	2 GB
	System Memory	1 GB (128 MB reserved for video)
	Graphics	VIA ChromotionHD 2.0 Integrated Graphics Processor (in VIA VX900 chipset)
	Integrated Wireless[3]	Atheros 802.11 a/b/g/n Wi-Fi adapter with dual-band multi-position adjustable external antenna
	Operating System	Microsoft Windows Embedded Standard 2009
	Keyboard	Keyboard (USB or PS/2) varies by region
	Mouse	Mouse (USB or PS/2) varies by region
	Side Panels	Standard 100 mm VESA mounting holes

[2]Product complies with U.S. Trade Agreement (TAA). Available in U.S only.

[3]A standard WLAN (Wi-Fi) infrastructure with wireless access points is required and is not included.

Options

	NOTE: Optional accessories are available as separate purchase.	Part Number
Accessories	HP Quick Release Kit	EM870AA
	HP Integrated Work Center Stand	GN783AA
	65 Watt External Power Supply replacement	AZ552AA
Communications	HP Neoware NA USB Wireless Adapter[2] (US only; not certified for use in Latin America or Canada) (Asia/Pacific: Taiwan, Australia, Malaysia, Singapore, Indonesia, Philippines) Security: WEP except 256-bit, WPA and WPA2 only	AK256AA
	HP Neoware EMEA USB Wireless Adapter[2] (EMEA; not certified for use in Russia or Belarus) Security: WEP except 256-bit, WPA and WPA2 only	AK257AA
Memory	Apacer 4GB AH522 USB 2.0 Flash Drive	91.HDE2S.HP00C
	Apacer 8GB AH522 USB 2.0 Flash Drive	91.HDF2S.HP00C
	Apacer 16GB AH522 USB 2.0 Flash Drive	91.HDG2S.HP00C
Touch Screens	ELO Touch 1529L Flat Panel - USB /serial combo[1]	E926109
	HP L5009tm LCD Touchscreen - USB/serial combo	VK202AA
Security	HP USB Smartcard Keyboard	ED707AA
	SCM USB Smart Card Reader SCR331[1]	904622
	HP Keyed Cable Lock (BFR/PVC free)	BV411AA
Input Devices	HP PS/2 Standard Keyboard	DT527A
	HP USB Standard Keyboard	DT528A
	HP USB Smartcard Keyboard	ED707AA
	HP PS/2 2-Button Optical Scroll Mouse	EY703AA
	HP USB 2-Button Optical Scroll Mouse	DC172B
Care Pack Services	9x5 Next-Business-Day3Advanced Exchange - 3 Years	331653-001; U4847E[4]
	9x5 Next-Business-Day3 On-Site Coverage - 3 Years	331655-001; U4849E[4]

[1]This is a third party option. Option, warranty and support available directly from third party vendor.
[2]Wireless functionality is not supported for roaming environments. Thin client must be stationary for wireless device to properly function. A standard WLAN (Wi-Fi) infrastructure with wireless access points is required and is not included. See Administrator's Guide for supported wireless features.
[3]Service levels and response times for HP Care Pack Services may vary depending on your geographic location. Restrictions and limitations apply. For details, visit: http://www.hp.com/go/carepack.
[4]U4847E is available in all regions; U4849E is available in Latin America and Asia-Pacific/Japan.

Technical Specifications

Processor	VIA Nano u3500 1 GHz		
Chipsets	VIA VX900 Media System Processor north/south bridge unified chip		
Memory	**Flash**	2 GB	
	System Memory	1 GB DDR3 SODIMM (128MB reserved for video)	
Graphics	VIA ChromotionHD 2.0 Integrated Graphics Processor		
	Mode	**Refresh Rates** (Single Monitor)	**Color Depth**
	640 x 480	60, 72, 75, 85 Hz	8, 16, 32 bit
	800 x 600	60, 72, 75, 85 Hz	8, 16, 32 bit
	848 x 480	60, 75, 85 Hz	8, 16, 32 bit
	1024 x 480	60 Hz	8, 16, 32 bit
	1024 x 768	60, 70, 72, 75, 85 Hz	8, 16, 32 bit
	1280 x 720	60, 75, 85 Hz	8, 16, 32 bit
	1280 x 768	60 Hz	8, 16, 32 bit
	1280 x 1024	60, 75, 85 Hz	8, 16, 32 bit
	1360 x 768	60 Hz	8, 16, 32 bit
	1368 x 768	60, 75, 85 Hz	8, 16, 32 bit
	1400 x 1050	60, 75, 85 Hz	8, 16, 32 bit
	1440 x 900	60, 75, 85 Hz	8, 16, 32 bit
	1600 x 900	60 Hz	8, 16, 32 bit
	1600 x 1200	60, 75 ,85 Hz	8, 16, 32 bit
	1680 x 1050	60, 75 Hz	8, 16, 32 bit
	1920 x 1080	60, 75 Hz	8, 16, 32 bit
	1920 x 1200	60, 75, 85 Hz	8, 16, 32 bit
	NOTE: The table represents a sample of possible modes that this controller is capable of displaying but various factors such as the capability and EDID info returned by the attached monitor, the interface used (DVI-I or DVI-D), and dual monitor mode may limit the availability of modes, color depth, and or refresh rate.		
Input/Output/ Peripheral Support	**Keyboard**	Keyboard (USB or PS/2) varies by region.	
	Mouse	Mouse (USB or PS/2) varies by region.	
	Printer	Local and/or network printers (RDP, ICA, LPD)	
	Video	DVI-I & DVI-D digital video output (plus included DVI-I-to-VGA adapter)	
Audio	**Output**	Internal amplified speaker 1/8-inch mini-jack, 24-bit stereo, 192-kHz sample rate	
	Input	1/8-inch microphone mini-jack, 20-bit stereo, 96-kHz sample rate	
Hardware Security	Security lock slot (cable lock sold separately) Secure USB compartment with 2 USB 2.0 ports		
Networking	10/100/1000 Ethernet (RJ-45)		
	TCP/IP with DNS and DHCP		
	Point-to-Point Protocol (PPP), Point-to-Point over Ethernet (PPPoE), Point-to-Point Tunneling Protocol (PPTP), Layer-2 Tunneling Protocol (L2TP), Wake on LAN (WOL), PXE		

	Server Network Time Protocol (SNTP)	
	Simple Network Management Protocol (SNMP)	
Wireless LAN (select models)	Adapter	Atheros 802.11a/b/g/n WIFI Adapter
	Form Factor	PCI-Express Half Mini Card
	Security[4]	Supports 64- and 128-bit WEP, WPA, WPA2, AES, TKIP, 802.1x authentication types EAP-TLS, EAP-TTLS, EAP-PEAP, EAP-FAST, LEAP
	[4]Wireless features, performance and support may vary depending on environmental variables such placement, settings and firmware of your access points. Please contact your wireless vendor for support of your wireless environment.	
I/O ports and connectors	6 USB 2.0 ports , 1 Serial, 1 Parallel, 2 PS/2, RJ45, 1 DVI-I, 1 DVI-D. (1 DVI-I-to-VGA adapter included in carton)	
Languages (MUI)	English, French, German, Spanish, Dutch, Norwegian, Korean, Simplified Chinese, Traditional Chinese, and Japanese	
Server OS Compatibility/ Support	Citrix XenApp 5 and 6 Citrix XenDesktop 3 and 4 Citrix Presentation Server 4.0 Windows Server 2008 Terminal Services Windows 2000/2003 Server families; Windows 2000/2003 Server Terminal Services VMware Virtual Desktop Infrastructure using RDP	
Software Included	Operating System	Preinstalled: Windows Embedded Standard 2009
	Protocols (Client Virtualization)	Microsoft RDP 7.0 Citrix ICA / HDX VMware View through PCoIP or RDP
	Protocol Clients	Citrix Receiver 3/Online Plug-in 13 VMware View 4.6 HP TeemTalk Terminal Emulator 7
	Browser supported	Internet Explorer 8 (IE8)
	Security	Enhanced Write Filter and File-Based Write Filter Symantec Endpoint Protection LogOn Manager (password logon)
	Session Brokers	Citrix Desktop Delivery Controller enabled through web browser VMware View 4.6 Available as download from hp.com: HP Session Allocation Manager (SAM) 3.1 VMware View 5.0 Available from vendor's website: Leostream Desktop Connection Broker Provision Networks (Quest) broker
	Management	HP Device Manager agent HP ThinState for rapid deployment HP Easy Tools GUI (avail as add-on) guides you through initial setup and configurations

	Additional components	Microsoft Windows Media Player v12.0 Microsoft .NET Framework 2.0 SP2, 3.0 SP2 & 3.5 SP1 HP Connection Manager (available as add-on)
	Other add-on software available (see: www.hp.com/support for latest list of available add-ons)	

Emulations

HP TeemTalk Terminal Emulator supports these emulations. SSH is supported in terminal emulation mode allowing users to secure their connections to the host.

Emulation	Terminal ID
ADDS Viewpoint A2	ADDS-A2
AIXTerm	Aixterm
ANSI BBS	Ansi
AT&T AT 386	at386-m
AT&T Dataspeed 4410	att4410
Bull BQ3107	VIP7700, VIP7760
Data General Dasher 410/412	dg410
Hewlett Packard HP700-92/96	2392A, 2622A, 70092, 70094, 70096
Hazeltine 1500	HZ1500
IBM 3151	11, 11-28, 31, 31-28
IBM 3270	3278-2 (24x80 Mono), 3278-3 (32x80 Mono), 3278-4 (43x80 Mono), 3278-5 (27x132 Mono), 3278-2-E (24x80 Color), 3278-3-E (32x80 Color), 3278-4-E (43x80 Color), 3278-5-E (27x132 Color), 3279-2 (24x80 Color), 3279-3 (32x80 Color), 3279-4 (43x80 Color), 3279-5 (27x132 Color), 3287-1 (Printer)
IBM 5250	3179-2 (24x80 Color), 3180-2 (27x132 Mono Msg), 3196-A1 (24x80 Mono), 3477-FC (27x132 Color Msg), 3477-FG (27x132 Mono Msg), 3486-BA (24x80 Mono), 3487-HA (27x132 Mono), 3487-HC (27x132 Color), 3812-1 (Printer), 5251-11 (24x80 Mono), 5291-1 (24x80 Mono), 5292-2 (24x80 Color), 5553-B01 (DBCS Printer), 5555-B01 (DBCS 24x80 Mono), 5555-C01 (DBCS 24x80 Color)

	McDonnell Douglas Prism-8, Prism-12	tty
	McDonnell Douglas Prism-9	tty
	Prime PT250	pt250
	SCO Console	ansi
	Siemens 97801	97801
	Stratus V102	v102
	Tandem TA6526, TA6530	tn6530-8
	Televideo 910	TVI910
	Televideo 920	TVI920
	Televideo 925	TVI925
	Televideo 950	TVI950
	Televideo 955	TVI955
	Unisys T27	UNISYS-TD830
	Viewdata 40	VIEWDATA - 40
	Viewdata 80	VIEWDATA - 80
	Viewdata Split	VIEWDATA - SPLIT
	DEC VT PCTerm	VT-PCTERM
	DEC VT100	m2200, vt100, vt101, vt102, vt125, vt131, vt132, vt220, vt240, vt320, vt340, vt420, vt510, vt520, vt525
	DEC VT100+	VT100+
	DEC VT500 7-bit	m2200, vt100, vt101, vt102, vt125, vt131, vt132, vt220, vt240, vt320, vt340, vt420, vt510, vt520, vt525
	DEC VT500 8-bit	m2200, vt100, vt101, vt102, vt125, vt131, vt132, vt220, vt240, vt320, vt340, vt420, vt510, vt520, vt525
	DEC VT 52	m2200, vt100, vt101, vt102, vt125, vt131, vt132, vt220, vt240, vt320, vt340, vt420, vt510, vt520, vt525
	VT HP220	vt220
	VT UTF8	VT-UTF8
	Wyse WY370	WYSE-370
	Wyse WY50	WYSE-50
	Wyse WY50+	WYSE-50
	Wyse WY60	WYSE-60
	Wyse PCTerm	WYSE-PCTERM
Dimensions H x W x D	Without stand	8.25 x 2.30 x 8.5 in (209.55 x 58.42 x 215.90 mm)
	With stand	8.65 x 2.30 x 8.5 in (219.70 x 58.42 x 215.90 mm)
Weight (approximate)	With stand	3.00 lbs (1.36 kg)
Power Supply	Worldwide auto-sensing 100-240 VAC, 50-60 Hz energy-saving automatic power-down, surge-tolerant, ENERGY STAR® 2.0 qualified 65-watt power supply supplying 19VDC	
Environmental	Operating temperature range	50° to 104° F (10° to 40° C)

Technical Specifications

	Non-operating temperature range	-22° to 140° F (-30 to 60° C)
	Humidity (non-condensing)	10% to 90% operating/5% to 95% non-operating
Regulatory Compliances	Product Safety	International: IEC60950-1, 12:2005, with CB Certificate and all National Deviations US and Canada: UL 60950-1 / CAN/CSA 22.2 No. 60950-1-03, 07:2006, Bi-National Standard for ITE Safety in the US and Canada and is published jointly by UL and CSA. Europe: EN 60950-1, 06:2003, Information Technology Equipment
	Ergonomics	The product has been tested and found to comply with all applicable GS ergonomic requirements.
	RF Interference	FCC Class B, CE Mark, VCCI
Warranty	Three-year limited hardware warranty. NOTE: Certain restrictions apply. Consult the HP Customer Support Center for details.	

Eco-Label Certifications & Declarations

This product has received or is in the process of being certified to the following approvals and may be labeled with one or more of these marks:

- ENERGY STAR® Category B
- EPEAT® registered where applicable/supported, see www.epeat.net for registration status by country
- BFR/PVC-free product*

* HP t5570 thin clients are brominated flame retardant and polyvinyl chloride free (BFR/PVC-free); meeting the evolving definition of "BFR/PVC-free" as set forth in the "iNEMI Position Statement on the 'Definition of Low-Halogen Electronics (BFR/CFR/PVC-Free).'" Plastic parts contain <1,000 ppm (0.1 percent) of bromine (if the Br source is from BFRs) and <1,000 ppm (0.1 percent) of chlorine (if the Cl source is from CFRs or PVC or PVC copolymers). All printed circuit board (PCB) and substrate laminates contain bromine/chlorine total <1,500 ppm (0.15 percent) with a maximum chlorine of 900 ppm (0.09 percent) and maximum bromine being 900 ppm (0.09 percent). Service parts after purchase may not be BFR/PVC-free. External power supply, power cords, keyboard, mouse, and DVI-to-VGA adapter are not BFR/PVC free

Additional Compliance

This product is in compliance with:

- This product complies with the requirements of the European Union's Ecodesign Directive 2009/125/EC and its associated implementing measures.
- Restrictions of Hazardous Substances (RoHS) directive - 2002/95/EC.
- Waste Electrical and Electronic Equipment (WEEE) Directive - 2002/96/EC.
- California Proposition 65 (State of California; Safe Drinking Water and Toxic Enforcement Act of 1986).
- Plastics parts weighing over 25 grams used in the product are marked per ISO 11469 and ISO1043.

Energy Consumption

	115 VAC (60Hz)	230 VAC (50Hz)	100 VAC (60Hz)
Idle State:	9.98 W	10.12 W	9.74 W
Off Mode:	0.44 W	0.45 W	0.45 W

NOTE: These power measurements made without integrated wireless Ethernet option installed.
NOTE: This product is in compliance with US executive order 13221, WOL (wake on LAN) disabled. Off Mode measurements made with WOL disabled.
NOTE: The actual power consumption at your location could vary and is dependent on many factors including, but not limited to, software load on the thin client, attached peripherals, and environmental factors.

Heat Dissipation

Idle State:	34.05 BTU/hr	34.53 BTU/hr	33.23 BTU/hr
Off Mode:	1.50 BTU/hr	1.54 BTU/hr	1.54 BTU/hr

NOTE: Heat dissipation is calculated based on the measured watts, assuming the service level is attained for one hour.

Batteries

This product complies with ISO standards:

- EU Directive 91/ 157/ EEC
- EU Directive 93/ 86/ EEC
- EU Directive 98/ 101/ EEC

Batteries used in the product do not contain:

- Mercury greater the 5ppm by weight
- Cadmium greater than 10ppm by weight

- Lead greater than 4000ppm by weight.

Battery size: CR2032 (coin cell)
Battery type: Lithium

Recycled material

Product

- This product containsat least 10% recycled materials (by weight).
- This product isat least 90% (by weight) recyclable when disposed of properly at end of life.

Packaging

- The EPE foam packaging material contains at least 5% (by weight) post-consumer recycled content.
- The corrugated paper packaging materials contains at least 80% (by weight) post-consumer recycled content.
- The packaging for this product is 100% (by weight) recyclable when disposed of properly.

RoHS Compliance

Hewlett-Packard is committed to compliance with all applicable environmental laws and regulations, including the European Union Restriction of Hazardous Substances (RoHS) Directive. HP's goal is to exceed compliance obligations by meeting the requirements of the RoHS Directive on a worldwide basis. From July 1, 2006, RoHS substances will be virtually eliminated (virtually = to levels below legal limits) for all HP electronic products subject to the RoHS Directive, except where it is widely recognized that there is no technically feasible alternative (as indicated by an exemption under the EU RoHS Directive).

Material Usage

This product does not contain any of the following substances in excess of regulatory limits (refer to the HP General Specification for the Environment at: http://www.hp.com/hpinfo/globalcitizenship/environment/supplychain/gen_specifications.html):

- Asbestos
- Certain Azo Colorants
- Certain Brominated Flame Retardants - may not be used as flame retardants in plastics
- Cadmium
- Chlorinated Hydrocarbons
- Chlorinated Paraffins
- Formaldehyde
- Halogenated Diphenyl Methanes
- Lead carbonates and sulfates
- Lead and Lead compounds
- Mercuric Oxide Batteries
- Nickel - finishes must not be used on the external surface designed to be frequently handled or carried by the user.
- Ozone Depleting Substances
- Polybrominated Biphenyls (PBBs)
- Polybrominated Biphenyl Ethers (PBBEs)
- Polybrominated Biphenyl Oxides (PBBOs)
- Polychlorinated Biphenyl (PCB)
- Polychlorinated Terphenyls (PCT)
- Polyvinyl Chloride (PVC) - except for wires and cables, and certain retail packaging has been voluntarily removed from most applications.
- Radioactive Substances
- Tributyl Tin (TBT), Triphenyl Tin (TPT), Tributyl Tin Oxide (TBTO)

Packaging

HP follows these guidelines to decrease the environmental impact of product packaging:

- Eliminate the use of heavy metals such as lead, chromium, mercury and cadmium in packaging materials.
- Eliminate the use of ozone-depleting substances (ODS) in packaging materials.

- Design packaging materials for ease of disassembly.
- Maximize the use of post-consumer recycled content materials in packaging materials.
- Use readily recyclable packaging materials such as paper and corrugated materials.
- Reduce size and weight of packages to improve transportation fuel efficiency.
- Plastic packaging materials are marked according to ISO 11469 and DIN 6120 standards.

End-of-life Management and Recycling	Hewlett-Packard offers end-of-life HP product return and recycling programs in many geographic areas. To recycle your product, please go to: http://www.hp.com/recycle or contact your nearest HP sales office. Products returned to HP will be recycled, recovered or disposed of in a responsible manner. The EU WEEE directive (2002/95/EC) requires manufacturers to provide treatment information for each product type for use by treatment facilities. This information (product disassembly instructions) is posted on the Hewlett Packard web site at: http://www.hp.com/go/recyclers. These instructions may be used by recyclers and other WEEE treatment facilities as well as HP OEM customers who integrate and re-sell HP equipment.
Hewlett-Packard Corporate Environmental Information	For more information about HP's commitment to the environment: [link to new HP white paper now in progress] Global Citizenship Report http://www.hp.com/hpinfo/globalcitizenship/gcreport/index.html Eco-label certifications http://www.hp.com/hpinfo/globalcitizenship/environment/productdesign/ecolabels.html ISO 14001 certificates: http://www.hp.com/hpinfo/globalcitizenship/environment/operations/envmanagement.html

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